REMARKS

The Applicant has amended the specification in accordance with the Examiner's suggestion, thereby overcoming the objection to the disclosure because of informalities. The Applicant has also amended the specification to correct typographical errors.

Claims 1, 2, 3 and 5 have been rejected under 35 U.S.C. 102(b) as being anticipated by Noack (U.S. Patent 1,948,940).

Claim 1 recites "a water injection element configured to introduce water to the combustion chamber". (Emphasis added.)

The Examiner argues that element 18 of Noack corresponds with 'a water injection element' as recited by Applicant's Claim 1. However, as described below, element 18 of Noack is not configured to introduce water to a combustion chamber, and therefore cannot be a water injection element as recited by Claim 1.

Although "element 18" is illustrated in Fig. 1 of Noack, "element 18" is not described (or even mentioned) in the text of the specification. Fig. 1 of Noack illustrates element 18 as a series of dashed lines that are located within the combustion chamber at the top section 9 of the steam generator. (Noack, Fig. 1.) The dashed lines of element 18 are connected to tube 17, which extends out of the combustion chamber. (Noack, Fig. 1.) Noack describes tube 17 as follows: "Each of the water tubes 16 has a tube 17 arranged concentrically therein to provide a path for the outflow of the combustion gases from the combustion chamber". (Emphasis added.) (Noack, page 1, lines 70-74.) Noack further describes the purpose of tube 17 by stating, "the combustion gases are discharged from the chamber

through the gas tubes 17". (Noack, page 1, lines 83-85.)

Thus, element 18 must represent the combustion gases that are discharged from the chamber through tube 17.

Moreover, Noack does not teach that water is introduced to the combustion chamber. Noack describes the water path as follows. "[W]ater inlet duct 13 … receive[s] water from the pump 7". (Noack, page 1, lines 60-61.) "[W]ater tubes 16 are connected to the water inlet duct 13, and extend upward to discharge [water] into the top section 9". (Noack, page 1, lines 67-70.) "The water is returned from the top section 9 through a plurality of return conduits 19 … connected through outlet duct 12 to the water pump 7". (Noack, page 1, lines 74-78.)

Noack further teaches that "heated and partially vaporized water rising in the water tubes 16 discharges into a space 26 in the top section 9". (Noack, page 1, lines 88-90.) "A portion of the water flows downwardly … [into] a confined space 31". (Noack, page 1, lines 91-94.) "Steam separated from the water rises to the top of the space 31 and discharges through pipe 33 to steam dome 32". (Noack, page 1, lines 100-102.) "The portion of the water not flowing into confined space 31 rises through openings 36 … into an apertured basin 37". (Noack, page 1, lines 104-107.) Water collects "in the space around the basin 37, from which the water is returned through a pipe 38 to the return conduits 19". (Noack, Page 2, lines 1-3.) "The steam rising from the basin 37 collects in steam dome 32. (Noack, Page 2, lines 3-4.)

Thus, Noack teaches that water is either circulated or discharged as steam into the steam dome. However, Noack does not teach that water is introduced into the combustion chamber. For these reasons, Noack fails to teach "a water injection element configured to introduce water to the combustion chamber" as recited by Claim 1.

Claim 1 also recites "an outer structure surrounding the combustion chamber, wherein a cavity is located between the combustion chamber and the outer structure".

The Examiner indicates that the cylinder 14 described by Noack corresponds with "an outer structure" as recited by Claim 1. However, Noack clearly states that a hollow combustion chamber is formed by "a bottom section, a main section 8 and a top section 9". (Noack, page 1, lines 50-53.) Noack further teaches that the main "section 8 is in the form of a cylinder 14". (Noack, page 1, lines 65-66.) Thus, Noack explicitly teaches that the cylinder 14 forms the main section 8 of the hollow combustion chamber. However, Noack fails to teach that there is another structure surrounding the cylinder 14, such that a cavity is located between the cylinder 14 and a such a surrounding structure. Thus, Noack fails to teach "an outer structure" as recited by Claim 1.

For these reasons, Claim 1 is not anticipated by Noack. Claims 2-3 and 5, which depend from Claim 1, are not anticipated by Noack for at least the same reasons as Claim 1.

In addition, Claim 2 recites "the combustion chamber comprises a first cylindrical element and the outer structure comprises a second cylindrical element, wherein the cavity is located between the first and second cylindrical elements".

The Examiner states that the combustion chamber and the outer structure constitute the first and second cylindrical elements. However, as described above, the cylinder 14 (i.e.,

"the outer structure' as defined by the Examiner) and the combustion chamber are the same element. That is, Noack only describes one cylinder, and not "a first cylindrical element" and "a second cylindrical element" as defined by Claim 2. For this additional reason, Claim 2 is not anticipated by Noack.

In addition, Claim 5 recites "a vapor outlet extending out of the combustion chamber, wherein the vapor outlet is configured to provide vapor exhaust from the combustion chamber."

As described above, the steam generated by Noack is not exhausted from the combustion chamber. Thus, Noack fails to teach "a vapor outlet extending out of the combustion chamber" as recited by Claim 5. For this additional reason, Claim 5 is not anticipated by Noack.

Applicant has canceled non-elected Claims 7-34, and added new Claims 35-58. Support for new Claims 35-58 can be found throughout the specification as originally filed. No new matter is added.

CONCLUSION

Claims 1-6 and 35-58 are pending in the present Application. Reconsideration and allowance of these claims is requested. If the Examiner has any questions or comments, he is invited to contact the undersigned.

Respectfully submitted,

E. Eric Hoffman,
Reg. No. 38,186
Attorney for Applicant

Customer No.: 022888
Tel. No.: (925) 895-3545
Fax No.: (925) 371-8187

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